EXECUTIVE SUMMARY
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IDEAL BASIC INDUSTRIES
Poverty Point Limestone Quarry
Tooele County, Utah

Section 16, Township 1 North, Range 8 West
ACT/045/012

February 25, 1981

LOCATION:

The proposed limestone quarry is located in Tooele County approximately 50 miles west of Salt Lake City and 5 miles north of I-80 aT the southern end of the Lakeside Mountains, a small mountan range bordering the western edge of the Great Salt Lake. Access is via the Rowley Exit. The property is owned by the State of Utah and involves a 320 acre State Mineral Lease (ML-36110), in Section 16, Township 1 North, Range 8 West. See attached map for exact location.

SOILS AND GEOLOGY:

Topography is fairly rugged with elevations ranging from 4,600 to 5,400 feet.

Bedrock underlying the lease consists of (in descending order) the Mississippian Great Blue Limestone Formation and Mississippian Humbug Formation.

The Great Blue Limestone is exposed over the majority of the lease. This formation is approximately 700 feet thick and consists of dark grey to black, fine to coarsely crystalline, massive limestone. Silica rich (cherty) zones are common throughout the formation. Only approximately the lowermost 150 feet of the formation are present in the vicinity of the lease.

Underlying the Great Blue Limestone is the Humbug Formation. In the vicinity of the project site, this unit is approximately 300 feet thick and consists of interbedded massive sandstones and limestones.

HYDROLOGY:

The project site is devoid of permanent surface water resources. One unnamed swale traverses the lease, bisecting the western third and flowing south. This swale probably flows during heavy runoff but no records are available to document frequency. The swale does not cross the quarry so complications are not anticipated. Likewise, little is known about groundwater. The information which is available indicates that groundwater is generally saline (1500 ppm TDS) and depth to the water table is 200 to 300 feet minimum. No groundwater studies have been done specifically for the project area. According to data collected during a 9 year period (1966-1975) from the Callister Ranch, 5 miles east of the proposed quarry site, the average annual precipitation is 12.4 inches.

ECOLOGY:

Vegetation in the vicinity of the Poverty Point lease is typical of shrub habitat in the Great Basin being composed of a mixture of sagebrush and shadscale communities. Sagebrush (Artemesia sp.) and hop sage (Grayia spinosa) are the dominate shrubs with winter fat (Eurotia lanata) and shadscale (Atriplex confertifolia) interspersed. A recent disturbance, mainly overgrazing, is evidenced by the presence of Russian thistle (Salsola Kali) and the widespread dominance of cheatgrass (Bromus sp.), an introduced species that invades disturbed areas. Bunchgrass is common along drainage areas with limited distribution elsewhere. Utah juniper (Juniperus Utahansis) is randomly scattered along drainage areas and north facing slopes of hills around the project site. Grasses cover approximately 18 percent, forbs 1 percent, and shrubs 11 percent.

No threatened or endangered plant species are recorded for Tooele County.

The Poverty Point lease is located in an area of limited value to wildlife species because of its low plant productivity and simple habitat structure. The only big game in the area are antelope and occasional mule deer. Upland game include cottontails and chukar. The abundance and use of these resources are unknown. A variety of other wildlife species potentially occur on the site including jackrabbits, ground squirrels, pocket and field mice, kangaroo rats, wood rats, coyotes, kit foxes and badgers. The most common birds found in the area are Horned Larks, Western Meadowlarks, House Finches and Common Ravens. Less abundant birds are Retailed Hawks, Golden Eagles, Marsh Hawks, and several species of flycatchers and sparrows. A variety of reptiles such as snakes and lizards probably inhabit the site. No endangered or threatened species are known to occur in the area although a historical Peregrine Falcon aerie is located near I-80 some 3 miles south of the project.

No permanent streams supporting a sport fishery are found near the lease. The intermittent streams in the vicinity contain little or no aquatic life.

In general, the limited habitat, low water availability and heavy grazing in the area make the lease site unsuitable for most wildlife species.

The lease is presently used for cattle and sheep grazing and possibly for outdoor recreation such as hunting. The lease contains about 20 AMU's (animal month units); however, the area to be quarried has little value for grazing due to exposed rock and steep slopes. Rock outcrop area's are estimated to represent approximately 18 percent of the 50 acre quarry area.

STRUCTURES AND FACILITIES:

The mining operation will consist of a total of approximately 59 acres and includes the quarry, access-haul road, topsoil and overburden storage area, ore stockpile area, and a portable on-site crushing and screening plant.

MINING AND RECLAMATION:

The mining plan for the quarry calls for working at a rate of aproximately 1 acre per year for an overall life of about 50 years.

All of the quarried material will be crushed by a portable crusher at the site prior to transfer. The portable crusher will be a single unit, consisting of a primary jaw crusher, screens, and a secondary cone crusher. The mining operation will involve the following steps:

During Operations:

1. All available topsoil (growth media) will be stockpiled and protected for final revegetation purposes.

2. Waste rock from the foot of the quarry will be used as fill in the limestone storage and truck loadout area. Waste rock overburden from the upper quarry area will be blasted and dozed laterally and downhill to the worked out quarry floor.

3. Mining will be conducted in a safe, orderly, and minerlike fashion and in such a manner as to minimize visual and environmental degradation.

4. A benching type quarry operation with drill and blast procedures will be utilized.

5. The limestone will be crushed and screened on-site utilizing a portable system, stockpiled, and hauled by truck to the existing plant at Devils Slide.

6. No permanent on-site facilities will be constructed.

7. Fugitive dust will be controlled by chemical stabilization and water.

After Operations:

1. All extraneous debris, scrap metal, wood, trash, and structures will be removed from the site.

2. All storage piles and fills will be regraded to minimize erosion and safety hazards, and all highwalls will be reclaimed by backfilling or cutting to achieve a slope of 45 degrees or less.

3. Stockpiled growth media will be redistributed over the disturbed areas to the extent that it is available and practical.

4. All disturbed areas capable of supporting plant growth will be revegetated utilizing fertilizer, mulch, and an approved seed mixture.

5. All disturbed areas will be monitored to ensure that reclamation standards have been met prior to surety release.

IMPACTS:

As a result of the mining operation the limestone deposit will be removed and the original topography will be permanently altered. During the life of the operation, environmental impacts will be minimal due to the remoteness of the site and existing conditions. These impacts should be mitigated upon termination of the operation. Due to the size of the operation, the local socioeconomic impact will be minor.

APPLICATION HISTORY:

July 1, 1980	Notice of Intention and Mining and Reclamation Plan filed.
July 23, 1980	Office visit by Ideal representatives.
Thru October, 1980	Application Review.
January 17, 1981	On-site inspection.
January 19, 1981	Notice of Action to Environmental Coordinating Committee.
January 20, 1981	Meeting with Ideal representatives.
February 4, 1981	Request for additional information.
February 24, 1981	Additional information received.
February 25, 1981	Executive Summary prepared and surety estimated.
February 26, 1981	Plan and Surety presented to the Board.

SURETY:

Reclamation surety for this operation was estimated by Ideal to be $29,310.00, less any inflation during the expected 40-50 year life of the operation.

A revised surety has been estimated by the Division to be $54,000.00, including 13% inflation for a 5 year mine life and 59 acres of disturbance. The surety should be reevaluated every 5 years.

JWS/te